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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,949	08/24/2000	Takashi Kameyama	450108-02227	5491

20999 7590 03/12/2004

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EXAMINER	
SELBY, GEVELL V	

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/622,949	Applicant(s) KAMEYAMA, TAKASHI	
	Examiner Gevell Selby	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-10 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 1, 2, 6 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of U.S. Patent No. 6,111,607.** Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 12 of US 6,111,607 with independent claim 12 incorporated therein discloses a signal processing device comprising:

luminance signal forming means (generator means) for forming a luminance signal of said pixel based on said red signal, green signal and blue signal per said pixel of said video signal;

detection means (saturation conversion rate detector) for detecting saturation per said pixel of said video signal;

compression processing means (luminance converter means and saturation converter means) for compression processing said red signal, green signal and blue signal

of the corresponding pixel without changing hue and saturation of said pixel but changing brightness based on said luminance signal formed by said luminance signal forming means and the corresponding detection result obtained by said detection means.

The control means is not claimed but it is obvious that there is a control means (microcomputer 125 and controller 124) for controlling the signal levels of said red signal, green signal and blue signal compression processed by said compression processing means as required without changing said hue and said brightness of said pixel but changing said saturation as described in the specification in column 5, lines 2-9 and column 18, line 58 to column 20, line 47.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kameyama, EP 0 801 509 A2.

In regard to claim 1, Kameyama, EP 0 801 509 A2, discloses a video signal processing device (see figure 1 A and B) for processing keeping signal levels of red signal, green signal and blue signal per pixel of video signal under the predetermined reference level, comprising:

luminance signal forming means (see figure 11, element 201) for forming a luminance signal of said pixel based on said red signal, green signal and blue signal per said pixel of said video signal (see page 14, lines 49-50);

detection means (see figure 11, element 216) for detecting saturation per said pixel of said video signal (see page 15, lines 46-51);

compression processing means (see figure 1B, elements 111, 112, 124) for compression processing said red signal, green signal and blue signal of the corresponding pixel without changing hue and saturation of said pixel but changing brightness based on said luminance signal formed by said luminance signal forming means and the corresponding detection result obtained by said detection means (see page 6, lines 17-22); and

control means (microcomputer 125) for controlling the signal levels of said red signal, green signal and blue signal compression processed by said compression processing means as required without changing said hue and said brightness of said pixel but changing said saturation (see page 5, lines 21-27).

In regard to claim 2, Kameyama, EP 0 801 509 A2, discloses a video signal processing device according to Claim 1, wherein said compression processing means;

increases the compression ratio (kc) of said red signal, green signal and blue signal as the saturation of said pixel increases (see page 9, line 53 to page 10, line 3 and equation 17).

In regard to claim 3, Kameyama, EP 0 801 509 A2, discloses video signal processing device according to Claim 1, comprising:

said compression processing means;

comprises correction means (see figure 1A, element 124) for selecting the compression ratio corresponding to said luminance signal formed by said luminance signal forming means from the predetermined amplitude transmission characteristic (kw) changing corresponding to the signal level of said luminance signal (see page 9, line 49 to page 10 line 3 and equation 17) and for correcting said selected compression ratio based on the corresponding detection result obtained by said detection means (see page 15, lines 46-51); and

compression means (see figure 1B, elements 111 and 112) for compression processing said red signal, green signal and blue signal by multiplying said red signal, green signal and blue signal of the corresponding pixel by said compression ratio corrected by said correction means respectively (see page 7, lines 29-40 and equation 9).

In regard to claim 4, Kameyama, EP 0 801 509 A2, discloses a video signal processing device according to Claim 3, wherein:

said amplitude transmission characteristic (kw) is formed of the knee effect showing gains for compressing said luminance signal (see page 9, lines 50-51).

In regard to claim 5, Kameyama, EP 0 801 509 A2, discloses video signal processing device according to Claim 3, wherein:

said amplitude transmission characteristic (kw) is the cumulative distribution of the occurrence frequency of said signal level of said luminance signal (see page 9, lines 50-51).

In regard to claim 6, Kameyama, EP 0 801 509 A2, discloses a video signal processing method for processing keeping the signal levels of red signal, green signal and blue signal per pixel of video signal under the predetermined reference level, comprising:

the first step for forming luminance signal of said pixel based on said red signal, green signal and blue signal per said pixel of said video signal and for detecting saturation per said pixel of said video signal (see page 14, lines 49-50);

the second step for compression processing said red signal, green signal and blue signal of the corresponding pixel without changing hue and saturation of said pixel but changing the brightness based on said luminance signal obtained at the first step and the corresponding detection result (see page 6, lines 17-22); and

the third step for controlling said signal level of said red signal, green signal and blue signal processed at the second step as required without changing hue and luminance of said pixel but changing said saturation (see page 5, lines 21-27).

In regard to claim 7, Kameyama, EP 0 801 509 A2, discloses a video signal processing method according to Claim 6, wherein:

in said second step; the compression ratio of said red signal, green signal and blue signal increases as the saturation of said pixel increases (see page 9, line 53 to page 10, line 3 and equation 17).

In regard to claim 8, Kameyama, EP 0 801 509 A2, discloses a video signal processing method according to Claim 6, wherein:

in said second step; the compression ratio is selected from the prescribed amplitude transmission characteristic (kw) changing corresponding to the signal level of said luminance signal corresponding to said luminance signal formed at said first step, said selected compression ratio is corrected based on the corresponding detection result obtained at the first step, (see page 9, line 49 to page 10 line 3 and equation 17) and said red signal, green signal and blue signal are compression processed by multiplying said red signal, green signal and blue signal of the corresponding pixel by said corrected compression ratio (see page 7, lines 29-40 and equation 9).

In regard to claim 9, Kameyama, EP 0 801 509 A2, discloses a video signal processing method according to Claim 8, wherein:

said amplitude transmission characteristic (kw) is formed of knee effect showing gains for compression processing said luminance signal (see page 9, lines 50-51).

In regard to claim 10, Kameyama, EP 0 801 509 A2, discloses a video signal processing method according to Claim 8, wherein:

said amplitude transmission characteristic (kw) is formed of the cumulative distribution of the occurrence frequency of said signal level of said luminance signal (see page 9, lines 50-51).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art discloses a video signal processing device with luminance and/or saturation compression:

US5,124,785,

US 5,555,031,

US 5,296,920,

US 5,130,786,

US 5,949,482,

US 6,515,700,

US 2003/0133019.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 703-305-8623. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary, Vu Le can be reached on 703-308-6613. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VU LE
PRIMARY EXAMINER

gvs